**Sample Space and Tree Diagrams Practice**

Kimberly has three pair of pants: one black, one red, and one tan. She also has four shirts: one pink, one white, one yellow, and one green. Draw a tree showing all possible outfits that she could wear, if an outfit consists of one pair of pants and one shirt. How many different outfits can Kimberly wear?

Samuel is buying a new car. He wants either a convertible or a hatchback. Both types of cars are available in red, white, or blue and with automatic or standard transmission.

1. How many **events** are there in this problem? What are the different events?
2. For each event, what are the possible **outcomes**?
3. Draw a tree diagram all possible choices of cars that are available.

A restaurant sells kids’ meals consisting of one main course, one side dish, and one drink, as shown in the table below.

Kids’ Meal Choices

|  |  |  |
| --- | --- | --- |
| **Main Course** | **Side Dish** | **Drink** |
| Hamburger | French Fries | Milk |
| Chicken Nuggets | Applesauce | Juice |
| Turkey Sandwich |  | Soda |

How many different **events** are there in this problem?

For each event, how many possible **outcomes** are there?

Draw a tree diagram showing all possible kids’ meals.

How many different kids’ meals can a person order? How do you know?